CLWT-100™

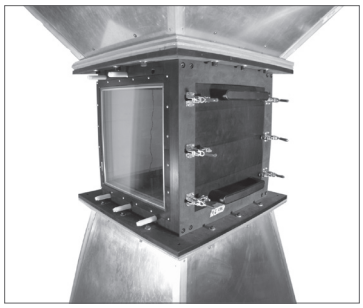
RESEARCH QUALITY, CLOSED LOOP WIND TUNNEL

The CLWT-100™ is a research quality wind tunnel designed for component, heatsink, printed circuit board, and unit level characterization. It can be used for flow characterization, flow visualization and thermal resistance measurements. The CLWT-100™ is a closed loop design capable of delivering air flows from 0 to 5 m/s and producing temperature ranges from -10°C to +85°C.

It has aerodynamically designed ducts and flow management elements that provide uniform and homogenous flow in the test section. Air flow temperature control is achieved using conventional heaters and refrigeration units.

Wind tunnel heat losses are minimized by a double wall design with thermal insulation. The test section is thermally insulated by a Delrin frame having front and side windows made of a heat resistant multilayer glass panel for optical access and ease of flow visualization.

There are 24 sensor ports in front and on the sides of the test section for inserting a variety of probes, such as thermocouples, Pitot tubes,velocity measuring sensors, etc. Wind tunnel control is automated using ISD™ and stagePOINT™ technologies.



Close-up view of the CLWT-100's test section

OVERALL DIMENSIONS (L X W X H)
198 cm x 114 cm x 285 cm
(78" x 45" x 112")

FLOW RANGE
0 to 5 m/s (0 to 1,000 FT/MIN)

TEMPERATURE RANGE
-10°C to 85°C (52°F to 185°F)

NUMBER OF SENSOR PORTS
24

POWER
230 VAC

WEIGHT
900 kg (2000 lbs.)

FEATURES:

- **Heat Sink Characterization**
  Characterize a variety of heat sink sizes for natural and forced convection cooling
- **Heat Sink Comparison**
  Test two heat sinks side by side and compare their thermal performance in the same environment
- **Component Testing**
  Test vehicle for component characterization
- **PCB Testing**
  Test actual or simulated PCBs for thermal and flow distribution
- **Flow Visualization**
  Observe flow distribution in the tunnel by smoke or buoyant bubbles through the all Plexiglas™ test section
- **Variable Speed**
  Change flow rate by controlling the fan RPM, using exterior power supply
- **Flow Direction**
  Test the effect of flow direction by controlling the fan operation
- **Quick Access**
  Quickly change the test specimen through the front access test section
- **Sensor Ports**
  Measure pressure, velocity and temperature through the ports holes
- **Free Lifetime Tech Support**

RoHS COMPLIANT

For further technical information, please contact Advanced Thermal Solutions, Inc. at **1-781-769-2800** or **www.qats.com**